

MACARONI OR DURUM WHEATS

Work of the United States Department of Agriculture.

GUY ELLIOTT MITCHELL.

The efforts of the Department of Agriculture not only contemplate the introduction into the United States of improved plants and crops from foreign countries to take the place of those which American farmers are already growing, and the breeding up and bettering of those which we now have; but also the introduction of plants onto great areas of country now thought to be unfit for farming.

Encroachment is constantly being made upon the waste places of the land; the semi-desert and the low places, by the introduction of crops which, through long years and centuries of acclimatization in similar regions of the Old World, have become either drought or water resistant.

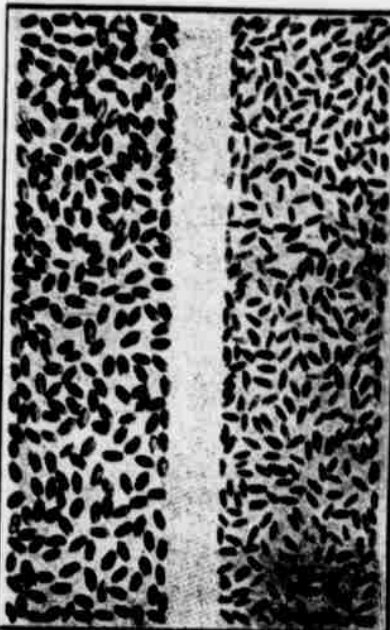
A striking example of this sort of work, which has already proven a high success, is the introduction of the macaroni wheat plant, or, as it is more properly called, durum wheat.

To Establish Macaroni Factories.

It was Secretary Wilson's idea at first to introduce the culture of this

Durum Wheat.

Bluestem Wheat.



DURUM WHEAT NOT INJURED BY RUST ORDINARY WHEAT PRACTICALLY DESTROYED.

wheat for supplying macaroni and the concurrent establishment of a new American manufacturing industry. This feature has been a success, but macaroni, however, is not a staple food among Americans as it is in Italy, and no very great things were expected. Nevertheless, Mr. Mark Carleton, a cereal expert, was sent abroad into Russia and Turkestan to get seeds of durum wheats, and these he brought back some years ago, and the Department distributed them for trial in different parts of the country. They grew well, so well, in fact, and under such dry conditions where other wheat would not yield profitably that it was considered a shame that this splendid looking, large-grained wheat, which is moreover, rust proof, could not be made into bread. It is an unusually hard and close meated wheat, and it was supposed to be good for only macaroni and vermicelli.

Useless, said the Croakers.

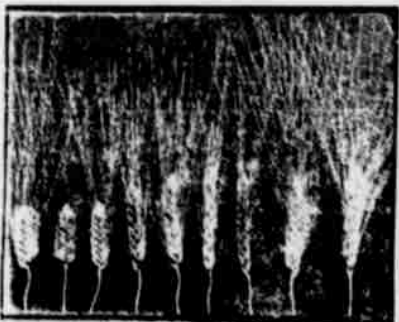
But the Department of Agriculture is nothing if not progressive, and the cerealists experts began to investigate whether it might not possibly be some good as a bread maker. Dozens of experiments were made in bread making and baking—a line, you may say, somewhat out of the beaten pathway of an agricultural department—and finally it was announced by Mr. Carleton that splendid bread could be baked from this durum wheat flour—light, nutritious and sweet as a nut. A hundred loaves were baked for the Department by a Washington bakery from the durum wheat flour and a hundred other loaves from regular Minnesota flour, and then samples were sent out to a hundred different judges to determine which was the best bread. In al-

most all of the cases the decision was given in favor of the bread made from durum wheat flour.

Then began the planting of this wheat on a great scale by the farmers of the Northwest all along the western edge of the wheat belt, where it yielded twenty-five, fifty and even seventy-five per cent. better than blue stem or the other standard wheats.

Opposed by the Millers.

But now came a check. It was difficult to grind this wheat, and the grow-



VARIOUS KINDS OF DURUM WHEAT.

ers found arrayed against them the whole combination of Northwestern millers, who said that the wheat was poor, made only inferior flour and would not make edible bread. But the farmers had the Department of Agriculture back of them, and Mr. Wilson had his own conviction about durum wheat and Northwestern millers, and, moreover, he had the courage to back them up. The trouble with the millers was that with the milling apparatus which they used for grinding ordinary No. 1 Red, they could not grind the harder durum, and so they forced the price of wheat down in the market and threatened to have Secretary Wilson removed to grow durum wheat. The Secretary, it seems, held his job, and the farmers had faith in him and continued planting durum wheat to the extent of several million additional acres each succeeding year.

Forced the Millers to Terms.

"I am thinking the millers will come around to grinding durum wheat," he



NEW ALGERIAN BARLEY IN TEXAS MADE 74 BUSHELS TO THE ACRE AGAINST 25 BUSHELS OF ORDINARY BARLEY PLANTED ALONGSIDE.

said, "The farmers of the United States will grow it because it is a splendid crop for them, throughout a very wide belt, and I guess the millers will rather have to grind it." Moreover, he intimated that the millers were at liberty to go right ahead and fire him.

Year before last some six million bushels of this durum or macaroni wheat was grown; last year the crop had increased to about eleven million bushels and the present crop is estimated by Mr. Carleton at from twenty to twenty-five million bushels.

But the industry has but barely started.

In connection with this subject I asked Mr. Wilson last spring how much

of the Western desert and semi-desert land was suitable for such dry crops as durum wheat—for this wheat will make a big crop on only ten inches of rainfall—and he said, as quick as a flash:

All American Acres of Some Use.

"Why, we have no useless American acres. We shall make them all productive. We have agricultural explorers in every far corner of the world, and they are finding crops which have become so acclimated to dry conditions, similar to our own in the West, that

Swedish Oats. Black Finckel.



TWO NEW OATS INTRODUCED BY THE DEPARTMENT.

we shall in time have plants thriving upon all of our so-called arid lands." And talks with the various explorers and travelers of the Department shows that the Secretary's statement is founded upon concrete facts. Already from distant and little-known quarters of the globe, and especially from the vast dry regions of Central Asia—the "Cradle of the World"—where the practice of agriculture reaches far back from history into dim traditional past, have been brought forth some of the most remarkable of desert plants, which are found to require but incredibly small amounts of moisture to produce luxuriant yields.

Opens Vast New Grain Belt.

But to return to durum wheat. Mark A. Carleton, to whom Secretary Wilson sent me for "details," said this:

"The Durum Wheat Belt extends on an average the width of the United States. It includes a very large fraction of a million square miles. This remarkable wheat will grow with ten inches of rainfall and yield fifteen bushels to the acre, where ordinary



wheat is an absolute failure. This is about two bushels more than the average wheat yield for the United States.

"There are many other crops with as great possibilities which thrive on but slight moisture, including splendid forage plants. I might mention Kaffir corn, the sorghums, millets and brome grass, as well as new kinds of oats and barleys of wonderful drought-resisting powers, the emmer or speltz and a long line of others.

Plenty of Food for the World.

"We are constantly finding new grains and forage plants in the Caucasus, in Algeria, in Turkestan and other dry countries which will bring under cultivation amazing areas of now waste lands."

In the face of this, what does the prediction, a few years ago, of Sir William Crookes, of England, look like, to the effect that the agricultural lands of the earth had practically reached their producing limit in grain production, and who foresaw within a short time an increasing population crying unavailingly for bread?

Fish Cannot Live in Pure Water.

By use of their gills fishes breathe the air dissolved in water. Transferred to water from which the air has been artificially driven out, or in which the air absorbed by them is not replaced, they are soon suffocated. They require aerated water to maintain life and they take it in constantly through their mouths, retaining the air and expelling the water through their gills. Should the water in a lake be completely cut off from contact with the air long enough for the fish to exhaust the supply of air, they would die. It would take a severe and long continued freeze to accomplish this, but it might happen, and doubtless has frequently happened, in a small body of water.

Unique Fishing.

Up in Wisconsin there is a disciple of Isaac Walton who has a unique way of propelling his boat and fishing at the same time. Fitted up at the stern of the boat there is a paddle wheel something on the same style as those used on the Mississippi river steamers. From this there is run gearing and a chain to a crank in the center of the boat. This the old man turns with one hand while with the other hand he is able to attend to his fishing line.

A Toss.

"Here's to you old pall
May you live a thousand years
Just to keep things lively
In this vale of tears
And may I live a thousand years
Just short one day
For I wouldn't like to stay here
When you are gone away."

TRIED PLAYING HOBO.

EXPERIMENTER FOUND THAT THE REAL HOBO HAS SOURED THE SOULS OF HUMANITY.

Connecticut Man Thought It an Easy Matter to Travel Penniless from New York to Torrington Now Realizes His Mistake.

A prosperous Connecticut man has made what he believes to be a fair test of the charity of the world, and has found it wanting. More, he has lost faith in his friends and is absolutely convinced that clothes do make the man, no matter what schools may teach or teachers preach.

William A. Gleason is his name. He was a delegate to the National Temperance Convention at Wilkes-Barre, Pa., and stopping over in New York on his way home, he decided to play "hobo" for the remainder of the journey, and started out without money and dressed like a tramp.

He Had Theories.

He argued that the world is charitable. He believed that car conductors would take pity on his plight and give him "lifts"; that farmers would allow the homeless one to sleep in their barns, and that kind-hearted housewives would feed the hungry after the manner of the Good Samaritan. Now he knows better.

The first conductor he told his hard luck tale to would have thrown him off the car if he hadn't jumped. The first night out he was "turned down" by half a dozen farmers and slept hungry next to a fence. Housewives called to their dogs when he approached, and one woman—charitable soul—made him saw wood for two hours for one meal.

Friends as Bad as the Rest.

Matters got so bad at last that Gleason went out of his way to visit some of his friends who had boasted of their charity. He was sure of a warm welcome, even though they wouldn't recognize him. He found his friends were no more charitable than the rest of the world, and without exception he got from them the cold shoulder, and not cold pork shoulder either.

A postmistress scowled at him when he wrote three postal cards in the post office, because he was disreputable looking.

Even the Dog Misunderstood.

Even a dog that he met troubled his soul and made him waste half an hour mending his trousers. In all his journey he met but one person who was kind to him, and this was a waitress. In a cheap Bridgeport restaurant, who read him a lecture on the error of his ways.

Mr. Gleason says he is glad he made the trip, but he doesn't want to try it again. The charity of the world, he has found, is not what it is cracked up to be.

IMPORTANT AFFAIRS.

In at the Finish.

York Springs (Pa.) Comet: We always thought our town was finished, but we see that E. P. Breunier is preparing to build a new barn.

Movement in Cereals.

Cheyenne (Wyo.) Sun: I. B. Corn, of Rice, has announced his intentions of moving to Wheatland.

What Are the Other Things.

Lebanon (Tenn.) Banner: Messrs. Joe and Avery Grannis have been running a very successful bachelors' hall on Spring street. They have company most every night and delightfully entertain them with music, cards, and other things.

Great Minnesota Tournament.

Mallard (Minn.) Call: Bassie Patton and Rog Bovee were out boat riding. Blanche Bovee and Ralph Stevens were out bicycle riding. Oille Chapman was out buggy riding last week.

A FEW AFTERTHOUGHTS.

"The dollar is less potent than formerly," according to Governor Folk of Missouri. Mr. Folk has probably been trying to buy a beefsteak.

A writer in the Century Magazine inquires "When do birds moult?" And the Washington Post hastens to reply that it is at about the time of the year that they lose their feathers.

It is said that each army recruit costs Uncle Sam, all told, \$1,000. Missouri legislature figure.

It should be suggested that if John D. Rockefeller will fit up a laboratory for scientific research in mosquito extermination, and provide all the kerosene needed for experiments, a great deal will be forgiven.

London crowds have been gazing at the display of models of the Japanese fleet, contributed by the makers of these ships that were constructed in England. A working model of the Russian navy might be displayed by junk dealers.

When the Mikado served up lead whale at his banquet given to Secretary Taft, he undoubtedly had in mind providing something in the Secretary's own class.

The Chicago man who was robbed by footpads in Berlin must have felt at home.

A young hippopotamus is on sale in New York for \$20,000. If taken this month, immediate advantage should be taken of this offer, before the fall advance in prices.

Senator Burton is charged with Nepotism. Most people spell it with two syllables.

Reflections of a Bachelor.

From the New York Press.
It hurts a girl awfully to get unburned through her open-work stockings.

A great deal of money can be made by not having a private vegetable garden (How about the week-old vegetables you otherwise eat?)

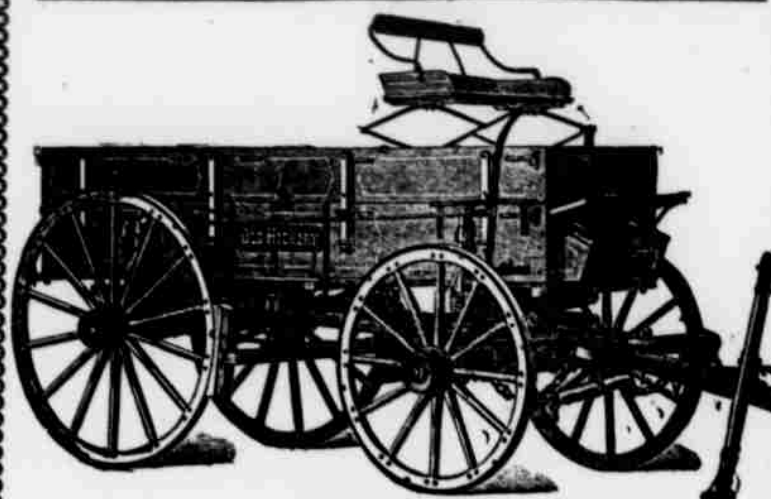
With a good many people, having a "pail" consists in getting for \$4 something worth \$5.

A girl has an awfully appealing way of acting in a hammock as though she would fall out unless you held her in.

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